



The Effect of Capital Expenditure and Corporate Hedging on Firm Value with Exchange Rate as Moderating Variable

Nuraeni Noviyanti¹, Iis Ismawati², Rita Rosiana³

^{1,2,3} Fakultas Ekonomi dan Bisnis, Universitas Sultan Ageng Tirtayasa, Indonesia

Corresponding Author: nuraeninoviyanti2878@gmail.com¹

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Abstract:

The purpose of this study was to determine the effect of capital expenditure and corporate hedging on firm value, and the effect of the exchange rate on the relationship between capital expenditure and corporate hedging and firm value. The population used in this study are manufacturing companies listed on the Indonesia Stock Exchange in 2016-2020. By using purposive sampling method, obtained 119 companies that meet the criteria as research samples with an observation time of 5 years, so that the total final sample is 595 observational data. This study uses secondary data obtained from the Indonesia Stock Exchange website. In this study, the analysis method is moderated regression analysis (MRA) with testing tools using the IBM SPSS version 25 data processing application. The results of this study indicate that: (1) Capital expenditure has no effect on firm value (2) Corporate hedging has an effect on firm value (3) Exchange rate as a moderating variable cannot moderate the relationship between capital expenditure and firm value (4) Exchange rate as a moderating variable cannot moderate the relationship between corporate hedging and firm value.



Introduction

The development of information and communication technology is able to encourage globalization in all aspects, including the economy. Companies that previously only operated on a local scale were encouraged to enter the international market. Of course, with the wider market share, competition between countries is inevitable.

The increasingly fierce competition is certainly able to make every company must continue to improve its performance, of course this is so that the goals of each company can be achieved. The main goal of the company is to maximize the value of the company. Maximizing company value is important for a company, because maximizing the company also means maximizing shareholders, which is also the company's goal (Salvatore, 2005). Economic growth is growing rapidly over time following the development of technology and information. Along with the development of technology and information, free trade between countries is inevitable. So that companies in Indonesia also expand their market share abroad. With technology, it will be easier for companies to be able to access international markets, either to search for or import raw materials which are relatively cheaper than other countries, expanding the scope of sales of their products to various countries through exports.

Trade that occurs between countries will certainly be more complicated because the currency in each country is different. This will be one of the risks in trade between countries due to changes in currency exchange rates. Especially in Indonesia, the rupiah is a currency with a fluctuating exchange rate, one of the reasons is the large demand on the spot market to meet the need for US dollars. Steps that can be taken to deal with the risk of exchange rate uncertainty are hedging. To minimize the risk of foreign exchange fluctuations, hedging can be done with foreign currency derivative instruments. Hedging through derivatives is also believed to be an effective and important risk management strategy (Seok et al., 2020). If the risk level of exchange rate fluctuations is higher, the hedging decisions with derivative instruments made by the company will also be higher (Zulfiana, 2014). Companies that have hedging will have better value for shareholders, so they will experience a relatively higher increase in company value than companies that do not have hedging policies (Nguyen and Jankengard, 2015). Research conducted by Panaretou (2014), Nur (2013), and Chaudhry et al. (2014) found that hedging activities with foreign currency derivative instruments have a positive effect on firm value. Caprisiana's research (2015) proves that hedging does not have a significant positive effect on firm value, while research conducted by Nguyen and Jankengard (2015) proves that hedging has a positive and significant effect on firm value.

Long-term investment decisions can affect the value of the company. This investment, namely capital expenditure, needs to be considered by the management because it involves the risks and returns that will be received in the future on the amount of funds that have been invested. Companies that invest in the form of capital expenditure are able to increase firm value or share prices, because they have sufficient investment in adding, repairing or modernizing fixed

assets if at any time the company needs it. So that the performance of a company will be smooth so as to achieve prosperity for shareholders. This certainly has a positive impact on the company's future growth. Research on capital expenditure has previously been carried out by Rahmiati and Sari (2013:10) which proves that capital expenditure has a positive effect on firm value. In the research of S. Ullah et al (2021) in the UK, it is proven that there is a negative relationship between Capital Expenditure and Corporate Hedging on Firm Value. The results show that the Tobin's Q ratio tends to be the lowest when Capital Expenditure and Corporate Hedging occur simultaneously. Doing capital expenditure on other countries will certainly be related to the exchange rate. This happens because spending in different countries uses different currencies.

According to Indrarini, S. (2019:2), the economy in Indonesia, especially in the manufacturing sector is considered the key to economic growth, this is because the manufacturing sector is considered more productive and able to provide wider effects so that it can increase the added value of raw materials, generate foreign exchange to the state, increasing the number of workers, as well as contributors to taxes and customs for the state.

The theory used in this research is signal theory. Signal theory explains the actions taken by the company's management that provide information to investors about how management is able to assess the prospects of a company. According to Brigham and Houston (2011: 184), signals are company actions that provide guidance to stakeholders on how they view the company's prospects.

This study adapts the research of S. Ullah et al (2021) which examines the effect of Capital Expenditure and Corporate Hedging on Firm Value who conducts research on the oil and gas industry domiciled in England in 2013-2017. The difference between this study and previous research is the addition of a moderating variable in this study, namely using the exchange rate as well as the sample and place in this research which was carried out in Manufacturing Companies listed on the Indonesia Stock Exchange in 2016-2020.

Hypothesis testing :

H₁: Capital expenditure has a positive effect on firm value

H₂: Corporate hedging has a positive effect on firm value

H₃: Exchange Rate can weaken the positive influence of Capital Expenditure on Firm Value

H₄: Exchange Rate can strengthen the positive influence of Corporate Hedging on Firm Value

Research Method

The type of research used in this research is quantitative research. The data sources used in this study are secondary data in the form of financial reports and annual reports obtained from the Indonesia Stock Exchange available at www.idx.co.id. With data collection methods in the form of documentation and library research. The data processing in this study used SPSS software (Statistical Package for Social Science) version 25. The population in this study were

manufacturing companies listed on the Indonesia Stock Exchange in 2016-2020. In this study the sample was taken based on the following criteria:

1. Manufacturing companies that have gone public and are listed on the Indonesia Stock Exchange (IDX) during the 2016-2020 period.
2. Manufacturing companies conducting Initial Public Offering (IPO) before 2016.
3. Companies that always present financial report data for 2016-2020 and have complete data.
4. Companies that have complete data on the variables used in this study are firm value, capital expenditure, corporate hedging, and exchange rate.

The variable in this study is firm value using the Tobin's Q formula:

$$\text{Tobin's Q} = \frac{\text{Total Market Value} + \text{Total Book Value of Liabilities}}{\text{Total Book Value of Assets}}$$

The independent variables in this study are Capital Expenditure and Corporate Hedging. Where capital expenditure uses the formula:

$$\text{CAPEX} = \frac{\text{Aset Tetap}_t - \text{Aset Tetap}_{t-1}}{\text{Total Aset}}$$

The independent variable corporate hedging uses a dummy variable, where for companies that do hedging are given a value of "1", while for companies that do not hedge are given a value of "0".

The moderating variable in this study is the Exchange rate. using the middle rate:

$$\text{Middle Rate} = \frac{\text{Selling Rate} + \text{Buying Rate}}{2}$$

The relationship among those concepts has to be depicted in a figure of conceptual framework as example below.

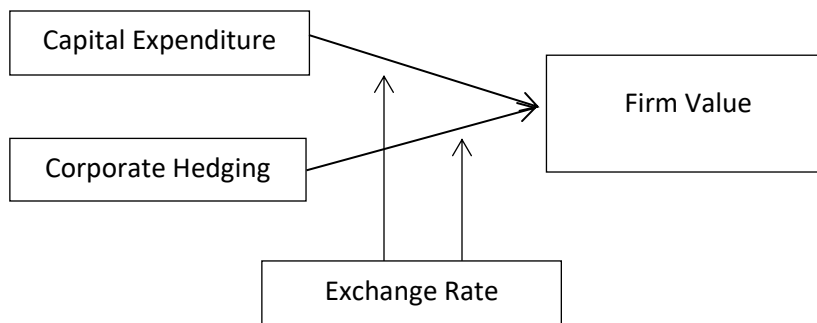


Figure 1. Conceptual Framework

Result and Discussion

The results of research and testing should be displayed in the form of pictures or tables. The format of table is as follows:

Regression Test Results (Model 1 for Hypotheses 1 & 2)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.103	.023		-4.497	.000
	CAPEX	.743	.709	.057	1.048	.295
	HEDGING	.108	.048	.121	2.225	.027

Source : SPSS 23 Output Results, Processed Data

Moderated Regression Analysis (MRA) Test Results (Model 2 for Hypotheses 3 & 4)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.185	.861		-.215	.830
	CAPEX	45.959	25.723	3.516	1.787	.075
	HEDGING	-.105	1.771	-.118	-.060	.953
	ER	6.131E-6	.000	.006	.099	.921
	X1Z	-.003	.002	-3.461	-1.758	.080
	X2Z	1.548E-5	.000	.241	.122	.903

a. Dependent Variable: LN_Y

Source : SPSS 23 Output Results, Processed Data

Effect of capital expenditure on firm value

The test results on t arithmetic obtained a value of 1.048 with a significance of 0.295, which means that capital expenditure has a positive but not significant effect on a significance value of 0.05, because the significance value of capital expenditure is greater than 0.05. This means that the first hypothesis (H1) is rejected. The results of this hypothesis mean that the level of capital expenditure measured using fixed assets means that it has an effect on firm value but is not significant in manufacturing companies. The selection of investment acceptance means that managers must prepare funds to finance the investment. The results of this study are supported by Alvizah Sri (2020), Puspitasari and Sudyanto (2010), and Nguyen (2015) who prove that capital expenditure has no effect on firm value. While this research is not in line with research conducted by Rahmiati and Sari (2013) which proves that capital expenditure has a positive effect on firm value (firm value).

Effect of corporate hedging on firm value

The results of the hypothesis testing of the corporate hedging variable have a significance value of 0.027 which is smaller than 0.05. This means that the hypothesis is accepted. This is consistent with research conducted by Panaretou (2014), Nur (2013), and Chaudhry et al. (2014)

found that hedging activities with foreign currency derivative instruments have a positive effect on firm value. This certainly shows that the market gives more value to companies that carry out corporate hedging because they think that the company is ready to minimize and mitigate risk from the exchange rate. In this case, managers are required to be able to carry out their responsibilities and duties effectively and efficiently in making every decision in order to be able to maintain viability and maintain company stability in business competition which is certainly getting tougher, so that the value of the company can continue to increase.

The effect of capital expenditure on firm value with the exchange rate as a moderating variable

The results of the tests that have been carried out with the interaction of capital expenditure variables with the exchange rate have a significance value of 0.080 which is greater than 0.05. This explains that the exchange rate variable can weaken the relationship between the capital expenditure variable and the firm value variable, which before the interaction between capital expenditure (X1) and exchange rate (Z) the t-count value for capital expenditure was 1.049 with a significant value of 0.295, while after there is an interaction between capital expenditure (X1) and the exchange rate (Z) the t-value becomes -1.758 with a significant value of 0.080. In this case the test conducted on the third hypothesis (H3) is rejected. Capital expenditure in this case is included in the form of long-term capital financing, the results of which can only be enjoyed or felt the benefits in the next few years.

The effect of corporate hedging on firm value with the exchange rate as a moderating variable

This is explained based on the results of the tests that have been carried out on the hypothesis, in which the interaction of the corporate hedging variable with the exchange rate has a significance value of 0.903 which is greater than 0.05. This explains that the exchange rate variable can strengthen the relationship between the corporate hedging variable and the firm value variable, which before the interaction between corporate hedging (X2) and exchange rate (Z) the t value for corporate hedging was 2.225 with a significant value of 0.027, while after there is an interaction between corporate hedging and the exchange rate, the t value becomes 0.122 with a significant value of 0.903. In this case the test conducted on the fourth hypothesis (H4) is not accepted. The results of this test indicate that the exchange rate is not able to moderate the relationship between corporate hedging variables and firm value. When capital expenditures are not made to countries with different currencies, the company chooses not to carry out hedging activities, thus the presence or absence of an increase/decrease in the dollar exchange rate will not affect the increase in the value of the company.

Conclusion

Based on the discussion of the research results, the following conclusions are obtained: capital expenditure has no significant positive effect on firm value. Corporate hedging has a

significant positive effect on firm value. Exchange rate does not moderate the relationship between capital expenditure and firm value. And the exchange rate does not moderate the relationship between corporate hedging and firm value. Where there are limitations in this study, namely there are companies that do not publish incomplete annual reports or have not published them at all and there are still companies that do not display stock prices completely so they cannot know the value of the company, a lot of data is outliers and this research is more influenced by external factors not examined in this study. Suggestions for companies are expected to be able to publish a complete and timely annual report. For investors who want to invest their funds in manufacturing companies, you should pay attention to macro factors and hedging activities in companies before making a decision to invest. Then for further researchers, they can add variables that are not built in this study because in this study the influence factor of external variables is quite high, for example using ROA or Leverage variables and can focus research only during the Covid-19 pandemic or after the Covid-19 pandemic only so that the data obtained is more specific.

References

- Brigham, A. F., & Houston, J. F. (2013). *Dasar-dasar Manajemen Keuangan Edisi 10*. Jakarta: Salemba Empat.
- Caprisiana, Nadia. (2015). Pengaruh lindung nilai dengan instrument derivatif terhadap nilai perusahaan. *Thesis : Universitas Gadjah Mada Yogyakarta*.
- Chaudhry, N. I., Mehmood, M. S., & Mehmood, A. (2014). Dynamics of Derivatives Usage and Firm's Value. *Wulfenia Journal*, 21(6), 122–140
- Ghozali, Imam. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS*. Semarang: Badan Penerbit Universitas Diponegoro
- Hirdinis. (2019). Capital structure and firm size on firm value moderated by profitability. *International Journal of Economics and Business Administration* 7(1), 174-191
- Indrarini, Silvia. (2019). *Nilai Perusahaan Melalui Kualitas Laba (Good Governance dan Kebijakan Perusahaan)*. Surabaya: Scopindo.
- Keown, Arthur J, et al. (2011). *Manajemen Keuangan : Prinsip dan penerapan*. Edisi 10 jilid 1, Indeks, Jakarta.
- Nguyen, N., & Jangkengard. (2015). Does hedging increase firm value? An examination of Swedish Companies. *Thesis Lund Univesity*.
- Nur, M. (2013). Analisis Kebijakan Lindung Nilai dan Pengaruhnya terhadap Nilai Perusahaan: Studi Empiris pada Bursa Efek Indonesia. *Tesis Institut Pertanian Bogor*.

- Panaretou, A. (2014). Corporate Risk Management and Firm Value: Evidence from The UK Market. *The European Journal of Finance*, 20(12), 1161–1186.
- Rahmiati, & Sari, W. (2013). Pengaruh capital expenditure, struktur modal, dan profitabilitas terhadap nilai perusahaan. *Jurnal Kajian Manajemen Bisnis*, 1-14.
- Salvatore, Dominick. (2005). *Managerial Economics. Fifth Edition*. Singapore: Thomson Learning.
- Seok, S., Kim, T., Cho, H., Kim, T. (2020). Determinants of hedging and their impact on firm value and risk : after controlling for endogeneity using a two-stage analysis. *Journal of Korea Trade*, Vol.24 No.1, pp. 1-34.
- Sri, Alvizah. (2020). *Capital Expenditure, Struktur Modal, Leverage, Good Corporate Governance, Corporate Social Responsibility, dan Total Asset Turnover* dampaknya terhadap Nilai Perusahaan dengan Kinerja Keuangan sebagai Variabel Intervening. *Skripsi*.
- Sudiyatno, Bambang & Puspitasari, Elen. (2010). *Tobin's Q dan Altman Z-Score* sebagai Indikator Pengukuran Kinerja Perusahaan. *Kajian Akuntansi*.
- Ullah, Subhan., Irfan, Muhammad., Kim, Ja Ryong., Ullah, Farid. (2021). Capital Expenditure, Corporate Hedging and Firm Value. *Journal The Quarterly Review of Economics and Finance*.
- Zulfiana, I. (2014). Analisis Faktor Internal dan Eksternal yang Mempengaruhi Penggunaan Instrumen Derivatif sebagai Pengambilan Keputusan Hedging. *Jurnal Manajemen UIN*.